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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,431	10/18/2005	Yusuke Takahashi	19254	3768

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Paul J Esatto Jr
Scully Scott Murphy & Presser
400 Garden City Plaza
Suite 300
Garden City, NY 11530

EXAMINER

DANIELS, ANTHONY J

ART UNIT	PAPER NUMBER
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2622

MAIL DATE	DELIVERY MODE
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11/08/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,431	Applicant(s) TAKAHASHI ET AL.	
	Examiner ANTHONY J. DANIELS	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 30-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 and 30-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

The amendment, filed 8/25/2010, has been entered and made of record. Claims 3-6 and 30-41 are pending in the application.

Response to Arguments

Applicant's arguments with respect to claims 3-6 and 30-41 and the Matsumura et al. in view of Seo rejection have been considered but are moot in view of the new ground(s) of rejection. Particularly, Applicant argues that neither Matsumura et al. nor Seo, taken alone or in combination, teaches the use of time information in combination with position information to identify an object. The examiner submits that this statement is accurate. However, note that Matsumura et al. does disclose determining the time of image capture, but does not disclose using this time information to identify the site.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 3-6 and 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al. (US # 6,222,583) in view of Seo (US # 6,014,608) and further in view of Kinjo (US 2002/0113872).

As to claim 3, Matsumura et al. teaches a video image object recognizing apparatus (Figure 1) comprising: estimating means for estimating a position of an object (Figure 10, CG image) in a captured video image from positional information which is information of the position of an object (Figure 4, "Position Information") and image capturing information including information for determining an area where an image will be captured (Figure 4, "Camera Angle" and "Focal Distance"), and recognition means for recognizing whether said object is present or not using a difference between visual feature quantities of a partial video image of said captured video image and said object and a difference between the position of said partial video image and said estimated position (Col. 13, Lines 32-42). The claim differs from Matsumura et al. in that it further requires that the estimating means estimates the position of an object in a captured video image from moving speed information of a video input unit providing the captured video image and that the image capturing information include time information.

In the same field of endeavor, Seo discloses a navigation apparatus (Figure 1) employed in a vehicle (Col. 3, Lines 51-55). The apparatus calculates a position of the vehicle and uses this position information to access a map information about the vehicle's current position. When

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calculating the current position, the system uses GPS information as well as speed information about the vehicle (Col. 3, Line 66 – Col. 4, Line 35; *{Matsumura et al. discloses in the Conventional Art section of the disclosure a navigational system similar to the endeavor of the main invention which is utilized in a vehicle. Matsumura et al. does not explicitly disclose that the main invention is implemented in a vehicle. However, navigation systems are most commonly used in vehicles. With the addition of Seo, Matsumura's invention is essentially used in the vehicle of Seo, where the speed of the vehicle; and hence, the camera of Matsumura et al. is used to estimate the position.}*). In light of the teaching of Seo, it would have been obvious to one of ordinary skill in the art utilize the speed information of the camera (on the vehicle) in Matsumura et al. in order to access the map information, because an artisan of ordinary skill in the art would recognize that this would allow the system of Matsumura et al. to attain a position of a landmark or geographic site with a higher degree of accuracy.

Further in the same field of endeavor, Kinjo teaches an information transmitting system (Figure 1) including an object identifying unit (Figure 1, object identifying unit “32”) which, from transmitted GPS information and shooting direction information of a camera (Figure 1, camera “10”), can identify an object in the image ([0030]-[0033]). The system also has the ability to identify moving subjects in an image. In this situation, the camera must transmit shooting data and time data to the object identifying unit in order properly identify the object ([0049]). In light of the teaching of Kinjo, it would have been obvious to one of ordinary skill in the art to include time information along with the image capturing, positional information and moving speed information to identify the sights of Matsumura et al., as modified by Seo, because an artisan of ordinary skill in the art would recognize that this would increase the versatility of

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the system of Matsumura et al. by including the ability to label moving objects rather than just static landmarks.

As to claim 4, Matsumura et al., as modified by Seo and Kinjo, teaches a video image object recognizing apparatus according to claim 3, wherein a probability distribution of an error of said image capturing information is reflected in a probability distribution that an object is present in recognizing whether said object is present or not (*The probability distribution of an error in the image capturing information is interpreted to be 0% - 100%. Also, the probability distribution that an object is present is 0% - 100%. Thus, the probability distribution of the error is reflected (i.e. the same as) in the probability distribution that an object is present.*).

As to claim 5, Matsumura et al., as modified by Seo and Kinjo, teaches a video image object recognizing apparatus according to claim 4, wherein the probability distribution that an object is present is employed as the difference between the position of said partial video image and said estimated position (*The examiner submits that the difference between the position of said partial video image and said estimated position would inherently involve a probability distribution.*).

As to claim 6, Matsumura et al., as modified by Seo and Kinjo, teaches a video image object recognizing apparatus according to claim 5, wherein a normal distribution of a variance of an error of said image capturing information is employed as said probability distribution (*Similar to claim 5, a probability distribution would inherently involve a normal distribution of a variance of the error.*).

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As to claims **30-35**, claims 30-35 are method claims corresponding to the apparatus claims 1-5, respectively. Therefore, claims 30-35 are analyzed and rejected as previously discussed with respect to claims 1-6, respectively.

As to claims **36-41**, in light of the passages of Matsumura et al. discussing computer generation ("CG") and the cited passages of Matsumura et al. discussed in claims 1-6, claims 36-41 are analyzed and rejected as previously discussed in claims 1-6, respectively.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. DANIELS whose telephone number is (571)272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sinh Tran/
Supervisory Patent Examiner, Art Unit
2622

AD
11/1/2010